

REMARKS/ARGUMENTS

Claims 1-8, 11-16, and 18 have been amended. New claims 54-66 have been added. Support for the amendments and new claims is found in the as-filed application at at least paragraphs [0016], [0017], [0019], and [0025]. No new matter has been added.

The Office Action mailed June 18, 2006, has been received and reviewed. Claims 1-18 are currently pending in the application. Claims 7 and 18 have been withdrawn from consideration as being drawn to a non-elected species and are amended herein. Claims 1-6 and 8-17 stand rejected. Applicants have amended claims 1-8, 11-16, and 18, canceled claims 9, 10, and 17, added new claims 54-66, and respectfully request reconsideration of the application as amended herein.

Information Disclosure Statement(s)

Applicants note the filing of an Information Disclosure Statement herein on July 19, 2004, and note that no copy of the PTO-1449 was returned with the outstanding Office Action. Applicants respectfully request that the information cited on the PTO-1449 be made of record herein.

Election/Restrictions

The Examiner states that the reply filed on April 7, 2006, was not fully responsive to the prior Office Action because Applicants did not elect a species for the oxidizer, the class 1.1 explosive, the polymer, the plasticizer, and the second metal material.

Applicants elect potassium perchlorate as the oxidizer and 1,3,3-trinitroazetidine as the class 1.1 explosive.

Applicants note that the polymer, the plasticizer, and the second metal material are optional ingredients (see at least paragraphs [0021] and [0027] of the as-filed specification and claims 11, 13, 14, and 16) and are not recited in independent claim 1 or new independent claim 54. As such, Applicants believe it is improper for the Examiner to require the election of a species for these components. However, in order to be responsive, Applicants elect cellulose acetate butyrate as the polymer, bis(2,2-dinitropropyl) acetal/bis(2,2-dinitropropyl)formal as the plasticizer, and magnesium as the second metal material, with traverse.

35 U.S.C. § 102(b) Anticipation Rejections

Anticipation Rejection Based on U.S. Patent No. 5,067,995 to Nutt

Claims 1-6, 9, 10, and 12 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,067,995 to Nutt (“Nutt”). Claims 9 and 10 have been canceled, rendering moot the rejection as to these claims. Applicants respectfully traverse this rejection as to the remaining claims, as hereinafter set forth.

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Brothers v. Union Oil Co. of California*, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987). The identical invention must be shown in as complete detail as is contained in the claim. *Richardson v. Suzuki Motor Co.*, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989).

Nutt discloses a porous high explosive having its pores filled with an inert material. Nutt at column 3, lines 13-20. The inert material stabilizes the high explosive during storage or transport. *Id.* at column 2, lines 22-25. The inert material has a low melt temperature and is a solid at ambient temperature. *Id.* at column 4, lines 30-33. The inert material is gallium, a binary eutectic mixture of rubidium and potassium, Wood’s metal, bees wax, or a low viscosity epoxy. *Id.* at column 4, lines 33-39. The high explosive is TNT, HMX, TATB, or PETN. *Id.* at column 4, lines 12-23. The pores of the high explosive are filled with the inert material under pressure. *Id.* at column 4, lines 40-41. The filled high explosive is cooled so that the inert material solidifies in the pores. *Id.* at column 4, lines 40-45. The inert material is removed after storage or transportation but before the high explosive is to be detonated. *Id.* at column 5, lines 39-42.

Nutt does not anticipate claim 1 because Nutt does not expressly or inherently describe the element of “a metal material having at least one oxidizer dispersed therein, the metal material defining a continuous phase at a processing temperature of a reactive composition.” Specifically, Nutt does not disclose that its stabilized high explosive includes an oxidizer. Since TNT, HMX, TATB, or PETN are not oxidizers, Nutt does not disclose this element of claim 1.

Dependent claims 2-6 and 12 and new claim 66 are allowable, *inter alia*, as depending from claim 1.

Nutt also does not anticipate new claim 54 because Nutt does not expressly or inherently describe the element of “a metal material having at least one class 1.1 explosive selected from the group consisting of cyclo-1,3,5-trimethylene-2,4,6-trinitramine, hexanitrohexaazaisowurtzitane, 4,10-dinitro-2,6,8,12-tetraoxa -4,10-diazatetracyclo-[5.5.0.0^{5,9}.0^{3,11}]-dodecane, 1,3,3-trinitroazetine, ammonium dinitramide, dinitrotoluene, and mixtures thereof dispersed therein, the metal material defining a continuous phase at a processing temperature of a reactive composition.”

New claims 55-65 are allowable, *inter alia*, as depending from claim 54.

Anticipation Rejection Based on U.S. Patent No. 3,745,076 to Sickman *et al.*

Claims 1, 5, 6, 8, and 10-17 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 3,745,076 to Sickman *et al.* (“Sickman”). Claims 10 and 17 have been canceled, rendering moot the rejection as to these claims. Applicants respectfully traverse this rejection as to the remaining claims, as hereinafter set forth.

Sickman discloses a propellant composition that includes a binder, oxidizer, fuel, and plasticizer. Sickman at column 1, lines 17-18. The fuel is a solid, such as a powder. *Id.* at column 5, lines 5-12. The fuel is aluminum, boron, magnesium, beryllium, an aluminum alloy of boron, magnesium, manganese, zinc, or copper, or a hydride of aluminum or beryllium. *Id.*

Sickman does not anticipate claim 1 because Sickman does not expressly or inherently describe the element of “a metal material having at least one oxidizer dispersed therein, the metal material defining a continuous phase at a processing temperature of a reactive composition.” Rather, Sickman discloses that its propellant composition includes a solid fuel. As such, the fuel in the propellant composition of Sickman does not define a continuous phase at the processing temperature and the oxidizer in the propellant composition of Sickman is not dispersed in the fuel.

Dependent claims 5, 6, 8, and 11-16 and new claim 66 are allowable, *inter alia*, as depending from claim 1.

Claim 6 is further allowable because Sickman does not expressly or inherently describe that its solid fuel is a fusible metal alloy having 50% bismuth, 25% lead, 12.5% tin, and 12.5% cadmium.

Sickman also does not anticipate new claim 54 because Sickman does not expressly or inherently describe the element of “a metal material having at least one class 1.1 explosive selected from the group consisting of cyclo-1,3,5-trimethylene-2,4,6-trinitramine, hexanitrohexaazaisowurtzitane, 4,10-dinitro-2,6,8,12-tetraoxa-4,10-diazatetracyclo-[5.5.0.0^{5,9}.0^{3,11}]-dodecane, 1,3,3-trinitroazetine, ammonium dinitramide, dinitrotoluene, and mixtures thereof dispersed therein, the metal material defining a continuous phase at a processing temperature of a reactive composition.” As previously explained, Sickman discloses that its propellant composition includes a solid fuel, which necessarily does not define a continuous phase. In addition, since the fuel is a solid, no ingredients of the propellant composition of Sickman are dispersed in the fuel.

35 U.S.C. § 112 Claim Rejections

Claim 10 stands rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Applicants have canceled claim 10, rendering moot the rejection.

ENTRY OF AMENDMENTS

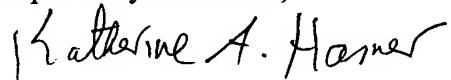
The amendments to claims 1-8, 11-16, and 18 and new claims 54-66 should be entered by the Examiner because the amendments are supported by the as-filed specification and drawings and do not add new matter to the application.

Applicants consider claim 1 to be generic and note that upon allowance of a generic claim, claims 2-8, 11-16, 18, and 66 depending therefrom in one or more non-elected species would also be allowable.

CONCLUSION

Claims 1-8, 11-16, 18, and 54-66 are believed to be in condition for allowance, and an early notice thereof is respectfully solicited. Should the Examiner determine that additional issues remain that might be resolved by a telephone conference, she is respectfully invited to contact Applicants' undersigned attorney.

Respectfully submitted,



Katherine A. Hamer
Registration No. 47,628
Attorney for Applicants
TRASKBRITT
P.O. Box 2550
Salt Lake City, Utah 84110-2550
Telephone: 801-532-1922

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